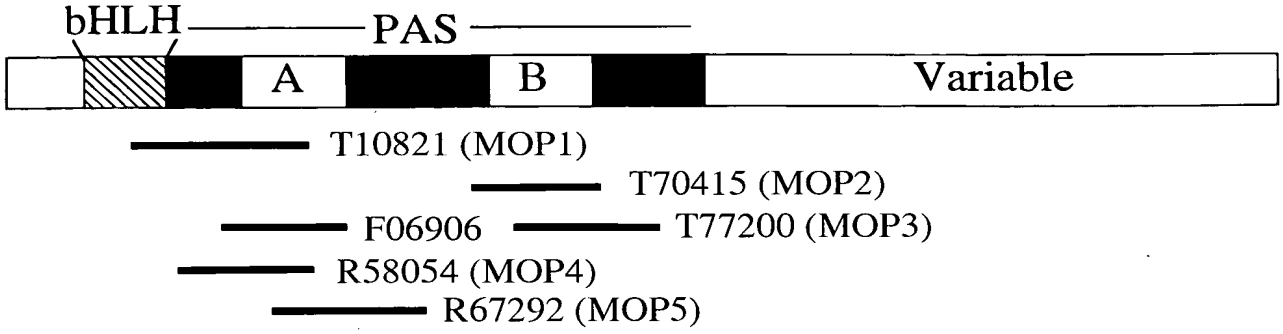


FIG. 1

FIG. 2

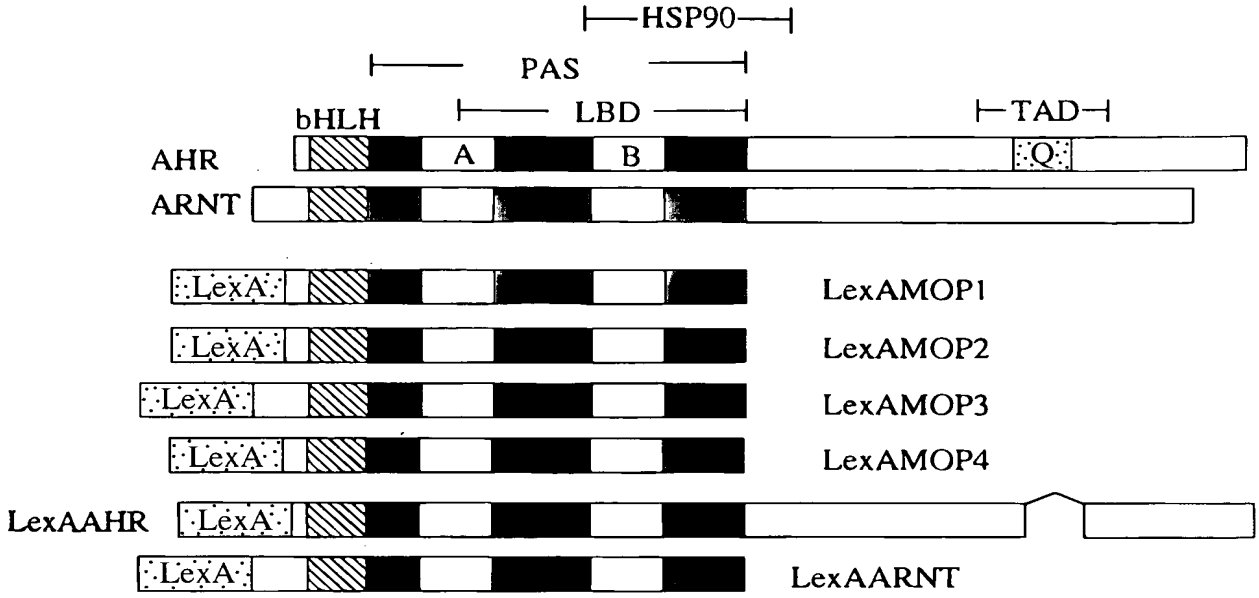

HSP90
PAS
bHLH
LBD
TAD
AHR
A
B
Q
ARNT
LexA
LexAMOP1
LexAMOP2
LexAMOP3
LexAMOP4
LexAAHR
LexAARNT

FIG. 3A

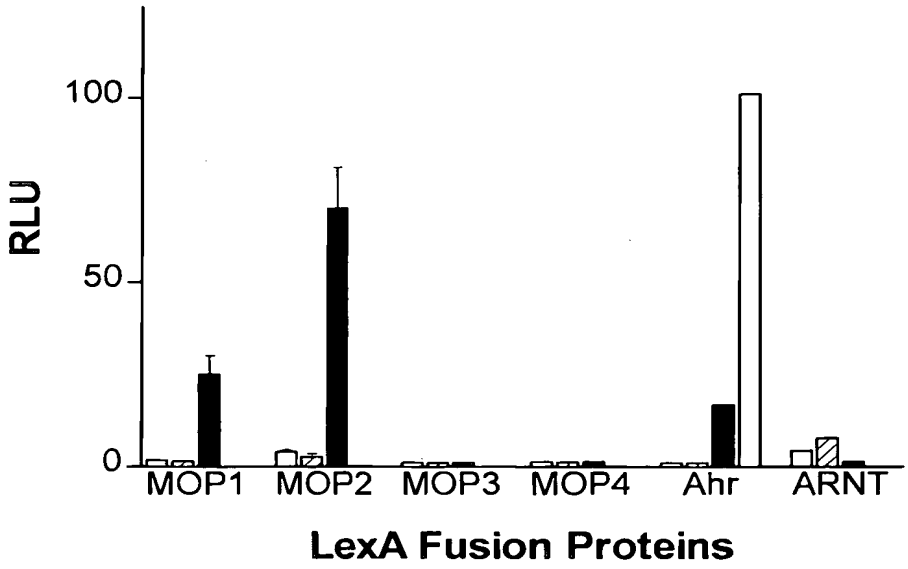

100
50
0
RLU
MOP1
MOP2
MOP3
MOP4
Ahr
ARNT
LexA Fusion Proteins

FIG. 3B

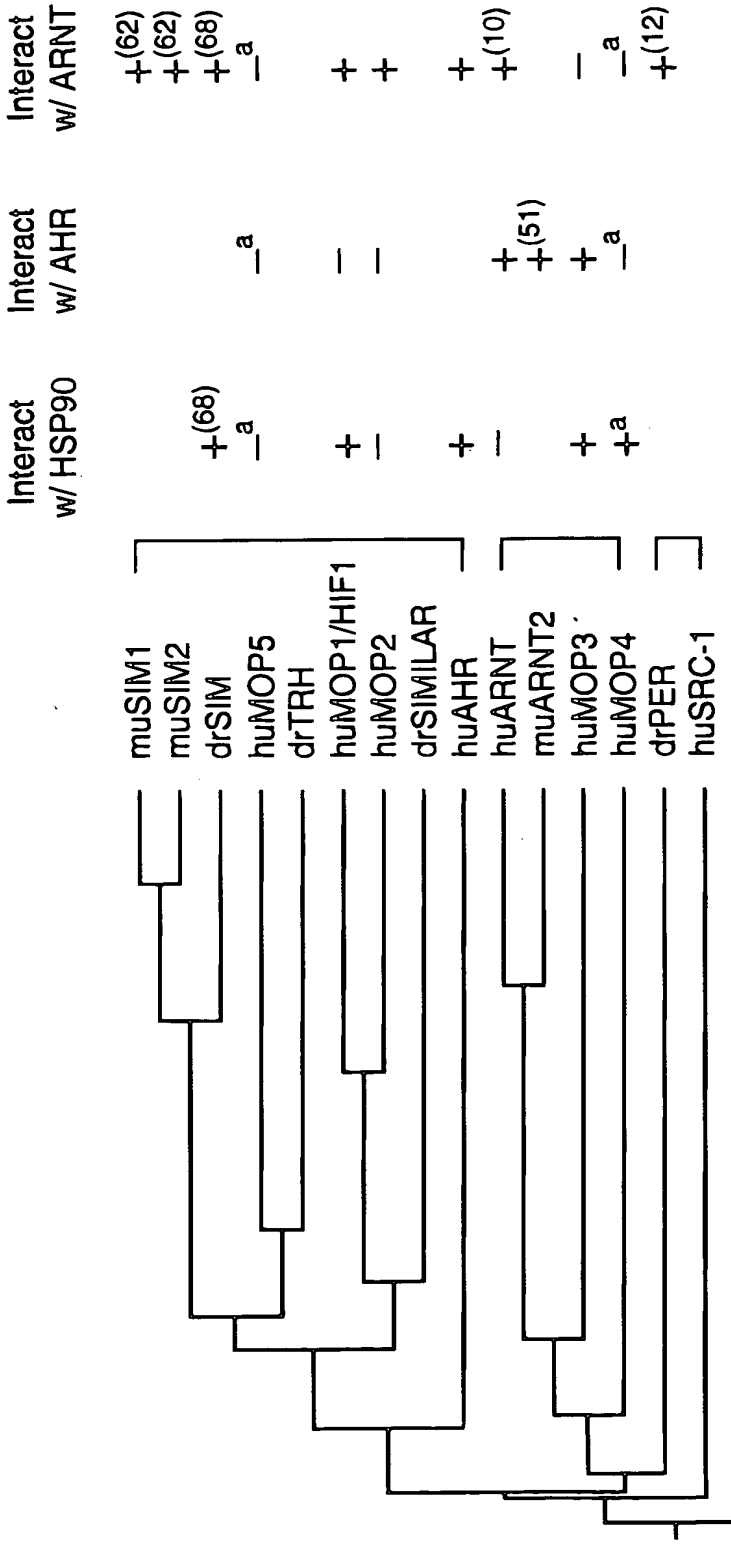
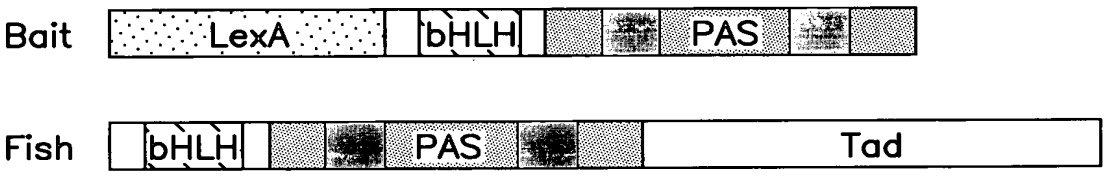

Interact w/ HSP90
Interact w/ AHR
Interact w/ ARNT
muSIM1
muSIM2
drSIM
huMOP5
drTRH
huMOP1/HIF1
huMOP2
drSIMILAR
huAHR
huARNT
muARNT2
huMOP3
huMOP4
drPER
huSRC-1
bsKinA
+(68)
−a
+
−
+
−
+
−
+
+(51)
+
−a
+
+a
+(62)
+(62)
+(68)
−a
+
+
+
+(10)
−
−a
+(12)
0
5
10
15
20
25
30
35
40

FIG. 4.

g	g	G	G	C	A	C	G	T	G	A	C	A	C
G	G	T	A	C	A	C	G	T	G	A	C	C	c
t	g	a	a	C	A	C	G	T	G	A	C	C	C
t	g	a	a	C	A	C	G	T	G	A	C	T	C
g	g	G	C	C	A	C	G	T	G	A	C	C	T
G	G	G	A	C	A	C	G	T	G	A	C	C	g
c	T	A	A	C	A	C	G	T	G	A	C	C	G
g	a	a	c	C	A	C	G	T	G	A	G	C	T
t	g	a	a	C	A	C	G	T	G	A	C	A	C
g	G	G	T	C	A	C	G	T	G	A	C	T	C
G/T	G	A/G	A	C	A	C	G	T	G	A	C	C	C
−7	−6	−5	−4	−3	−2	−1	+1	+2	+3	+4	+5	+6	+7

FIG. 5



LexAbHLH–PAS "Bait"

Full Length "Fish"	HIF1α	HIF2α	MOP3	MOP4	AHR	ARNT	CLOCK	LEXA
MOP3	+	++	–	++	–	–	++	–
ARNT	+	++	–	–	++	–	–	–

FIG. 6

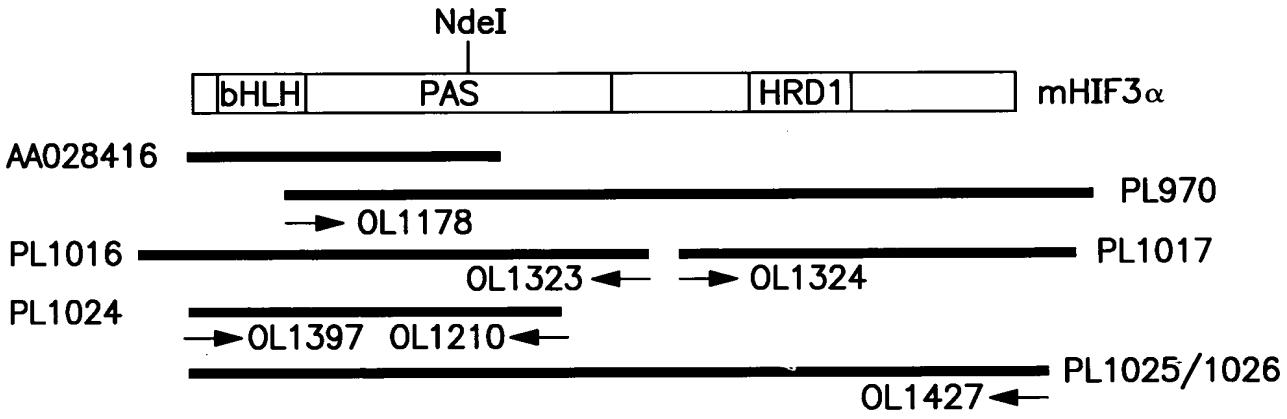

NdeI
bHLH
PAS
HRD1
mHIF3α
AA028416
PL970
OL1178
PL1016
PL1017
OL1323
OL1324
PL1024
OL1397
OL1210
PL1025/1026
OL1427

FIG. 7

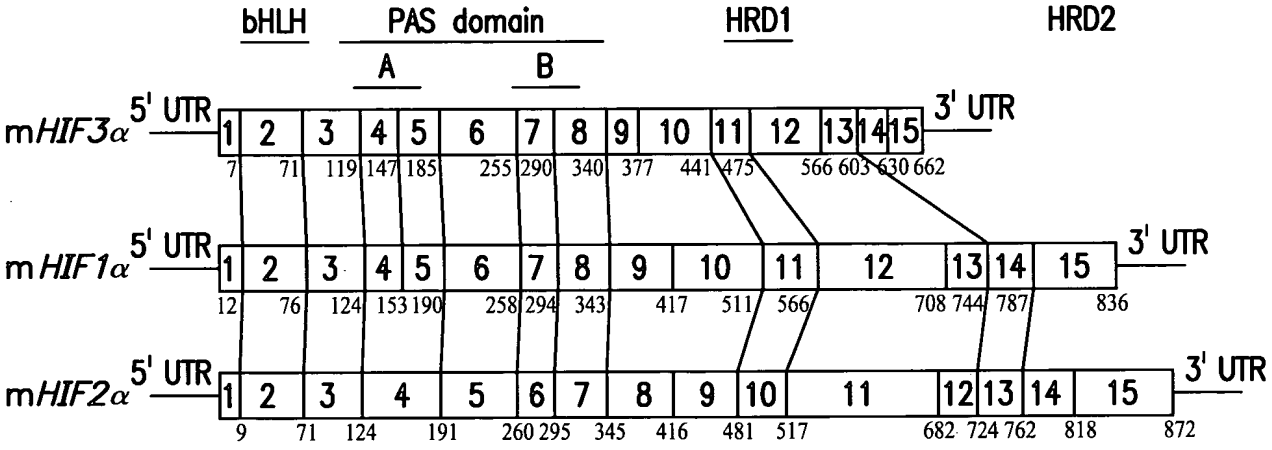

bHLH
PAS domain
A
B
HRD1
HRD2
mHIF3α 5' UTR
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
3' UTR
7 71 119 147 185 255 290 340 377 441 475 566 603 630 662
mHIF1α 5' UTR
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
3' UTR
12 76 124 153 190 258 294 343 417 511 566 708 744 787 836
mHIF2α 5' UTR
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
3' UTR
9 71 124 191 260 295 345 416 481 517 682 724 762 818 872

FIG. 8